

# PATENT ABSTRACTS OF JAPAN

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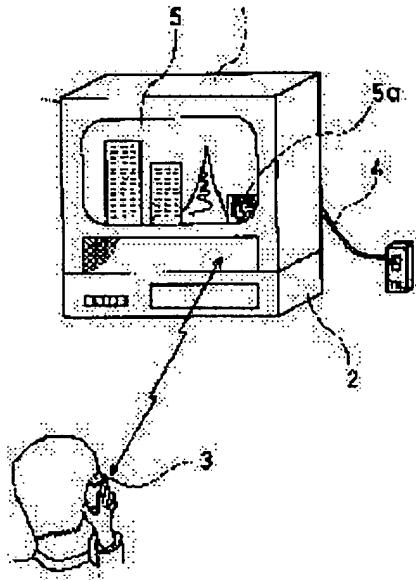
(72)Inventor : **TSUTSUMI KAZUKI**

## **(54) REMOTE CONTROLLER SERVING AS TELEPHONE SET**

### **(57)Abstract:**

**PURPOSE:** To unneccesitate going to the place of a handset when a telephone call is received at a position near a remote controller or a telephone call is required by building a handset part of a TV telephone into the remote controller which remotely controls a TV set, etc., by radio.

**CONSTITUTION:** A TV 1 is provided with a small screen forming part to secure an image 5a of a TV telephone at a corner of its screen 5 in addition to a part used for the normal programs. Meanwhile s VTR 2 of the VT 1 includes a record processing part to exclude the images and voices of TV programs and to record only the video and voice signals of the TV telephone in addition to a normal TV program recording function. Thus a telephone conversation is possible by means of a remote controller 3 of the TV 1, etc., which can serve as a telephone handset. Furthermore the screen of the TV telephone is shown at a corner of the screen 5 of the TV 1 where a normal TV program is shown. In such a constitution, a user can carry out a telephone conversation via the controller 3 and while looking at both the screen 5 and the image 5a simultaneously. In addition, the user can record only the images and voices of the TV telephone by the VTR 2 with exclusion of the images and voices of the TV programs.



### **LEGAL STATUS**

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**CLAIMS**

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**[Claim(s)]**

[Claim 1] Telephone combination remote control characterized by building the transmitter/receiver part of a telephone into the remote control for operating the electrical machinery and apparatus of television and others by remote control on radio.

[Claim 2] Telephone combination remote control according to claim 1 characterized by incorporating the screen formation control section for said telephone being a TV phone, wiring of this TV phone being connected to television, and the small screen formation section for forming the image of a TV phone in the corner of the screen of television being prepared in said television, and operating the small screen formation section of this television.

[Claim 3] Telephone combination remote control according to claim 1 or 2 characterized by to include the record processing control section for removing the image and voice of a program of television in the video for performing image transcription sound recording of said television, and the record processing section which inputs and records only the video signal and sound signal of a TV phone being prepared, and operating this record processing section in said remote control.

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the telephone combination remote control which gave the function of telephone to the remote control for operating television etc., and television.

[0002]

[Description of the Prior Art] In various electrical machinery and apparatus, such as television and an air-conditioner, operating by remote control using remote control has spread widely. Remote control is usually the magnitude which it can have in one hand. Various kinds of actuation keys on remote control are pressed, and an electrical machinery and apparatus is operated by wireless. On the other hand, the small radiotelephony machine which it can have in one hand has also spread widely. Moreover, the TV phone which can also transmit an image besides voice is also common knowledge as a telephone. The conventional TV phone has the television screen of dedication. It talks by the earphone, looking at this television screen.

[0003]

[Problem(s) to be Solved by the Invention] However, according to the above-mentioned conventional example, there was the following inconvenience. The earphone of radiotelephony and TV remote control are separate. If it is in the place which the earphone of radiotelephony left for a telephone to cut or telephone while following, for example, he is watching television, an earphone must be stood on picking to there. This has the inconvenience which must interrupt the program of about [ being troublesome ] and television temporarily. Moreover, in the conventional TV phone, the television screen of dedication is used as mentioned above. Therefore, while he is watching television, it must let out of sight the program of television which he is watching now and the screen only for TV phones must be seen to get a TV phone or telephone. There is inconvenience which must interrupt the program of television in the midst of this telephone. Moreover, it is also uneconomical to have the screen of dedication for a TV phone. Furthermore, when it desires to record the image and voice of a TV phone, according to the conventional example, it is necessary to attach video equipment especially for the screen only for TV phones. However, this is also uneconomical. The object of this invention is [ to require a telephone or telephone ] to offer the telephone combination remote control which does not need to go an earphone picking, when near has remote control of an electrical machinery and apparatus. Other objects of this invention are [ to require a TV phone or telephone ] to offer the remote control of telephone combination which does not need to interrupt a TV program and does not need the screen only for TV phones, while he is watching the TV program. The object of further others of this invention is to offer remote control of the telephone combination which can make economical the image of a TV phone, and an audio recording device.

[0004]

[Means for Solving the Problem] In order to attain the above-mentioned object, this invention is constituted as follows. The transmitter/receiver part of a telephone is built into remote control for this invention to operate the electrical machinery and apparatus of television and others by remote control on radio. Moreover, the screen formation control section to prepare the small screen formation section to connect with television and for wiring of a TV phone form the image of a TV phone in the corner of the screen of television in television, and for this invention operate the small screen molding machine style of this television is included in remote control. Furthermore, this invention removes the image and voice of a TV program in the video for performing image transcription sound recording of television, the record processing section which inputs and records only the video signal and sound signal of a TV phone is prepared, and the record processing control section for operating the record processing section of this video is included in remote control.

[0005]

[Function] This invention constituted as mentioned above acts as follows. Conversation of a telephone can be carried out using TV remote control as an earphone. Moreover, the screen of a TV phone is projected on the corner of the screen of television which is projecting the program. And conversation of a telephone is made using remote control, looking at the screen of a program and a TV phone. Furthermore, the image and voice of a TV program are removed in the video for television, and only the image and voice of a TV phone are recorded on it.

[0006]

[Example] Below, one example of this invention is explained with reference to drawing. In this example, television is mentioned as an electrical machinery and apparatus, and the TV phone is shown as a telephone. The perspective view of the busy condition of the example which applied this invention is shown in television at drawing 1. The block diagram for explaining the example of drawing 1 is shown in drawing 2. The perspective view of remote control of the example of drawing 1 is shown in drawing 3.

The state diagram which reproduced record of a TV phone is shown in drawing 4.

[0007] As shown in drawing 1, the video 2 for recording a program is connected to television 1. Moreover, television 1 is equipped with the remote control 3 for operating by remote control on radio. The wiring 4 of a TV phone is connected to television 1. The image and voice of a TV phone which came input close into television 1 through this wiring 4 from outside. And as shown in drawing 1 and drawing 2, on television 1 of this example, the small screen formation section 6 for forming image 5a of a TV phone in the corner of Screen 5 of television 1 other than the image function of the usual program is formed. Moreover, the record processing section 7 which removes the usual image and the voice of a TV program other than a record function of a TV program in video 2, and records only the video signal and sound signal of a TV phone on it is formed. Television control sections (graphic display abbreviation), such as turning on and off of the switch of television 1, selection of a channel, and accommodation of sound volume, are built in remote control 3. Although this configuration is the same as that of the conventional remote control, with the remote control 3 of this example, the record processing control section 10 for operating the screen formation control section 9 for operating the transmitter/receiver part 8 of a wireless type telephone and the small screen formation section 6 of the above-mentioned television 1 further and the record processing section 7 of the above-mentioned video 2 is added and incorporated. As shown in remote control 3 at drawing 3, the actuation keys 15 and 16 for the screen formation control section 9 shown in the transmission section 12, the receiver section 13, the telephone function part of push button section 14 grade, and drawing 2 other than the actuation key 11 of the usual television or the record processing control section 10 are formed. If a TV phone enters even if it does not press the actuation key 15, you may make it form image 5a of a TV phone automatically, although image 5a of a TV phone was formed in the corner of Screen 5 of television 1 in this example only when the actuation key 15 of the screen formation control section 9 was pressed.

[0008] Drawing 4 is combined, and an operation of the example constituted as mentioned above is referred to to drawing 1 thru/or drawing 3, and is explained to it. Suppose that he operates remote control 3 and is watching the program of television 1 now. Remote control 3 is taken, a push button 14 is pushed and it telephones to telephone the midst which is watching this program. A partner's image and voice are inputted into television 1 through the wiring 4 of a TV phone. Therefore, a push on the actuation key 15 of the screen formation control section 9 of remote control 3 forms image 5a of a TV phone in the corner of Screen 5 of the television 1 which is projecting the program on a small screen. The figure of the partner of a telephone projects on the small screen of this TV phone. It talks by applying remote control 3 to a face, catching a sight of this partner. Conversation is transmitted on radio between television 1 and remote control 3. Only the voice of a program is emitted from television 1 and the sound of a TV phone is not emitted. Also when the midst which is watching the program of television 1 has got the TV phone, it talks by applying remote control 3 to a face, pressing the actuation key 15 of the screen formation control section 9 of remote control 3 similarly, and looking at a small screen. If the actuation key 16 of the record processing control section 10 of remote control 3 is pressed to record the content of the TV phone, the image and voice of a TV program will be removed and only the video signal and sound signal of a TV phone will be recorded on video 2. Playback of this video 2 forms the image of a TV phone in the whole television screen 5, as shown in drawing 4. Voice is also reproducible from television.

[0009] In addition, this invention is not limited to the above-mentioned example, and can carry out various modifications. For example, although television 1 was mentioned as an electrical machinery and apparatus in the above-mentioned example, this invention is applicable if it is the electrical machinery and apparatus by which remote control actuation is carried out also except television 1. Moreover, although the TV phone was mentioned in the above-mentioned example, the thing which included the telephone of only the voice which is not a TV phone in remote control is also contained in this invention.

[0010]

[Effect of the Invention] According to this invention explained above, the following effectiveness is done so. Since the transmission-and-reception talk device of a telephone is included in remote control of the electrical machinery and apparatus of television and others and conversation of a telephone can be carried out, using remote control as an earphone, even if it does not go the telephone receiver in the distant place picking, it ends to get a telephone call or telephone, when near has remote control. Moreover, by actuation of the screen formation control section of remote control, when a TV phone tends to be got or it is going to carry out a TV phone while he is watching the TV program in order that the small screen formation section of television may form the image of a TV phone in the corner of the screen of television, it is not necessary to interrupt a TV program and, and the screen only for TV phones is not needed. Furthermore, by actuation of the record processing control section of remote control, the record processing section of video removes the image and voice of a TV program, since only the video signal and sound signal of a TV phone are inputted and recorded, video only for TV phones is not needed, but the image of a TV phone and an audio recording device can be obtained economically.

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**PRIOR ART**

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[Description of the Prior Art] In various electrical machinery and apparatus, such as television and an air-conditioner, operating by remote control using remote control has spread widely. Remote control is usually the magnitude which it can have in one hand. Various kinds of actuation keys on remote control are pressed, and an electrical machinery and apparatus is operated by wireless. On the other hand, the small radiotelephony machine which it can have in one hand has also spread widely. Moreover, the TV phone which can also transmit an image besides voice is also common knowledge as a telephone. The conventional TV phone has the television screen of dedication. It talks by the earphone, looking at this television screen.

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**EFFECT OF THE INVENTION**

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[Effect of the Invention] According to this invention explained above, the following effectiveness is done so. Since the transmission-and-reception talk device of a telephone is included in remote control of the electrical machinery and apparatus of television and others and conversation of a telephone can be carried out, using remote control as an earphone, even if it does not go the telephone receiver in the distant place picking, it ends to get a telephone call or telephone, when near has remote control. Moreover, by actuation of the screen formation control section of remote control, when a TV phone tends to be got or it is going to carry out a TV phone while he is watching the TV program in order that the small screen formation section of television may form the image of a TV phone in the corner of the screen of television, it is not necessary to interrupt a TV program and, and the screen only for TV phones is not needed. Furthermore, by actuation of the record processing control section of remote control, the record processing section of video removes the image and voice of a TV program, since only the video signal and sound signal of a TV phone are inputted and recorded, video only for TV phones is not needed, but the image of a TV phone and an audio recording device can be obtained economically.

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**TECHNICAL PROBLEM**

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[Problem(s) to be Solved by the Invention] However, according to the above-mentioned conventional example, there was the following inconvenience. The earphone of radiotelephony and TV remote control are separate. If it is in the place which the earphone of radiotelephony left for a telephone to cut or telephone while following, for example, he is watching television, an earphone must be stood on picking to there. This has the inconvenience which must interrupt the program of about [ being troublesome ] and television temporarily. Moreover, in the conventional TV phone, the television screen of dedication is used as mentioned above. Therefore, while he is watching television, it must let out of sight the program of television which he is watching now and the screen only for TV phones must be seen to get a TV phone or telephone. There is inconvenience which must interrupt the program of television in the midst of this telephone. Moreover, it is also uneconomical to have the screen of dedication for a TV phone. Furthermore, when it desires to record the image and voice of a TV phone, according to the conventional example, it is necessary to attach video equipment especially for the screen only for TV phones. However, this is also uneconomical. The object of this invention is [ to require a telephone or telephone ] to offer the telephone combination remote control which does not need to go an earphone picking, when near has remote control of an electrical machinery and apparatus. Other objects of this invention are [ to require a TV phone or telephone ] to offer the remote control of telephone combination which does not need to interrupt a TV program and does not need the screen only for TV phones, while he is watching the TV program. The object of further others of this invention is to offer remote control of the telephone combination which can make economical the image of a TV phone, and an audio recording device.

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**MEANS**

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[Means for Solving the Problem] In order to attain the above-mentioned object, this invention is constituted as follows. The transmitter/receiver part of a telephone is built into remote control for this invention to operate the electrical machinery and apparatus of television and others by remote control on radio. Moreover, the screen formation control section to prepare the small screen formation section to connect with television and for wiring of a TV phone form the image of a TV phone in the corner of the screen of television in television, and for this invention operate the small screen molding machine style of this television is included in remote control. Furthermore, this invention removes the image and voice of a TV program in the video for performing image transcription sound recording of television, the record processing section which inputs and records only the video signal and sound signal of a TV phone is prepared, and the record processing control section for operating the record processing section of this video is included in remote control.

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**OPERATION**

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[Function] This invention constituted as mentioned above acts as follows. Conversation of a telephone can be carried out using TV remote control as an earphone. Moreover, the screen of a TV phone is projected on the corner of the screen of television which is projecting the program. And conversation of a telephone is made using remote control, looking at the screen of a program and a TV phone. Furthermore, the image and voice of a TV program are removed in the video for television, and only the image and voice of a TV phone are recorded on it.

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

drawing 1

The perspective view of the busy condition of the example which applied this invention is shown in television.

drawing 2

The block diagram for explaining the example of drawing 1 is shown.

drawing 3

The perspective view of remote control of the example of drawing 1 is shown.

drawing 4

The state diagram which reproduced record of a TV phone is shown.

[Description of Notations]

1 Television

2 Video

3 Remote Control

4 Wiring of TV Phone

5 Screen of Television

5a The image of a TV phone

6 Small Screen Formation Section

7 Record Processing Section

8 Transmitter/receiver Part

9 Screen Formation Control Section

10 Record Processing Control Section

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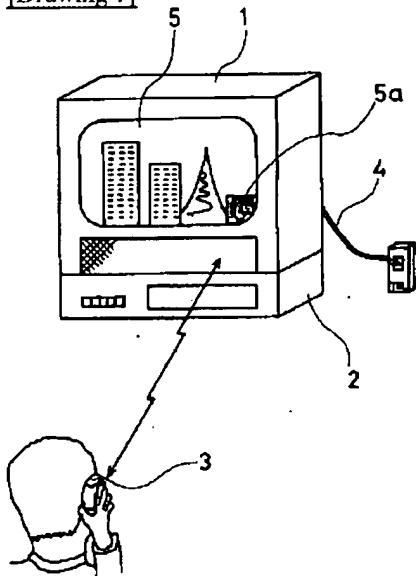
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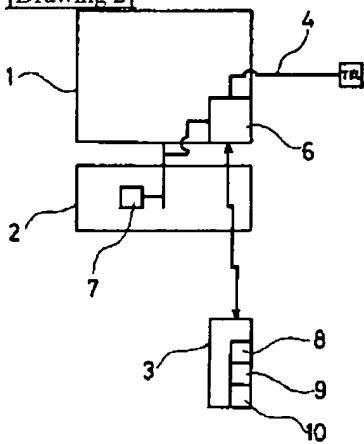
DRAWINGS

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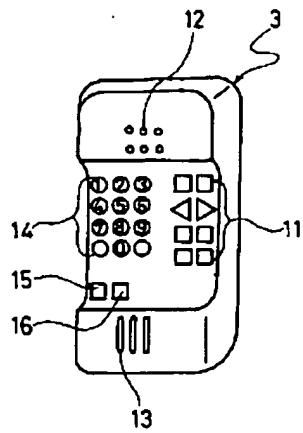
[Drawing 1]



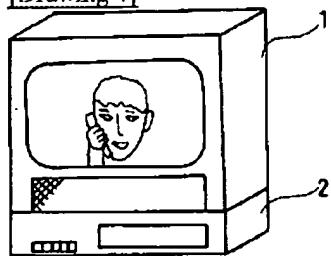
[Drawing 2]



[Drawing 3]



[Drawing 4]



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